

*Do not enter  
7/11/05 uR*

**Amendment to the Claims:**

**Claims 1-27 (Canceled)**

28. (Currently amended) A transgenic mouse whose genome comprises a null allele in the endogenous PTP36 ~~allele gene, wherein said null allele comprises exogenous DNA.~~
29. (Currently amended) The transgenic mouse of claim ~~5354~~, wherein ~~said the female~~ mouse exhibits, relative to a wild-type control mouse, a uterine abnormality comprising uterine dilation.
30. (Currently amended) The transgenic mouse of claim ~~5354~~, wherein the female ~~said~~ mouse exhibits, relative to a wild-type control mouse, a uterine abnormality comprising keratin in the uterine horns.
31. (Currently amended) The transgenic mouse of claim ~~5354~~, wherein the female ~~said~~ mouse exhibits, relative to a wild-type control mouse, a uterine abnormality comprising keratin in the uterine lumen.
32. (Currently amended) The transgenic mouse of claim ~~5354~~, wherein said mouse exhibits, relative to a wild-type control mouse, increased organ weight comprising at least one of the following: increased liver weight, increased spleen weight, increased thymus weight increased liver weight relative to body weight, and increased spleen weight relative to body weight.

**Claims 33-36 (Canceled)**

37. (Previously presented) A cell or tissue isolated from the transgenic mouse of claim 28.

**Claims 38-46 (Canceled)**

47. (Previously presented) A method of producing the transgenic mouse of claim 28, the method comprising:
- introducing a targeting construct capable of disrupting an endogenous PTP36 allele into a mouse embryonic stem cell;
  - selecting for the mouse embryonic stem cell that has undergone homologous recombination;
  - introducing the mouse embryonic stem cell selected for in step (b) into a blastocyst;
  - implanting the resulting blastocyst into a pseudopregnant mouse, wherein the resultant mouse gives birth to a chimeric mouse; and
  - breeding the chimeric mouse to produce the transgenic mouse.